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REMARKS

In the Office action mailed 11/05/2002, claims 3-5, 8, and 10-27 were allowed. In the Office action mailed 04/10/2003, the indicated allowability of claims 3-8 and 10-15 was withdrawn in view of newly discovered reference(s) and interpretations of the claimed invention, leaving claims 16-27 allowed. The current Office action, mailed 10/23/2003, indicates claims 9, 21, and 23-27 as allowed; however, the Detailed Action appears to reject claims 16-20 and 22. These rejections are not indicated in the Office Action Summary and there is no withdrawal of the indication of allowability of claims 16-20 and 22 in the Detailed Action.

Claims 1-12 and 14-33 are pending. Claim 13 was previously canceled.

The Applicants sincerely thank the Examiner for the indication of allowability of claims 9, 21, and 23-27, and the indication of allowable subject matter in claims 6 and 7, and respectfully request clarification of the status of claims 16-20 and 22.

Claims 1, 3, 5, and 8 have been amended to recite that the illumination lamp is disposed at an angle chosen in a manner to avoid specular reflection, as suggested by the Examiner on page 4 of the Office action. Claims 6 and 7 have been amended to correct informalities. Support for the amendments to claims 6 and 7 is found in Fig. 1B and the paragraphs [0041] and [0042] of the *Written Description*. These amendments do not add new matter.

Rejections under 35 U.S.C. § 112, ¶2

Claims 6 and 7 are indicated as being allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112 ¶2, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. No rejections under 35 U.S.C. § 112 ¶2 were set forth; however, the Applicants have amended claim 6 to correct an error in antecedent basis for "the camera imaging area" and claims 6 and 7 have been amended to clarify the angle at which the limit line extends from the edge of the camera imaging area. The Applicants believe these amendments correct any issues arising under 35 U.S.C. § 112 ¶2 and respectfully request reconsideration of these claims and the removal of these rejections.

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Rejections under 35 U.S.C. § 102

Claims 10-15 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,347,163 by Roustaei (hereinafter "Roustaei"). The Examiner states that Roustaei discloses a system for reading two-dimensional images using ambient and/or projected light, which includes measuring light from an electronic display, which could be an image from a computer 1408, a display device 1406, as stated in Col. 8, lines 50+ of Roustaei. The Applicants respectfully traverse the Examiner's position.

Claim 10, as amended, recites, among other elements, coupling a shroud to a surface of an electronic display to exclude ambient light; measuring light from the electronic display with a photodetector to determine whether the electronic display is an emissive display, and turning on an illumination lamp if the electronic display is not an emissive display. As discussed in paragraph [0045] if no emitted light is detected, then the system presumes the display is a reflective display. It is particularly desirable to exclude ambient light when scanning reflective displays because reflective displays often do not have anti-reflective coatings, and are especially susceptible to glare (*see, e.g.* paragraph [0009]).

As the Examiner notes, Roustaei discloses a system for reading two-dimensional images using ambient light. Roustaei does not teach or suggest the recited step of coupling a shroud to a surface of an electronic display to exclude ambient light from the computer-readable code. Roustaei teaches away from claim 10 because he uses ambient light (*see*, Col. 6, lines 15-16 and 22-32), which is contrary to using a shroud to exclude ambient light.

Similarly, Roustaei does not disclose or suggest the recited step of measuring light from the electronic display with the photodetector to determine whether the electronic display is an emissive display. The Applicants note Roustaei discloses in Col. 18, lines 50+ that "[o]nce decoded, the image data can be converted into a barcode symbol" and that "[t]he barcode symbol may then be output to a variety of peripheral units, including a printer 1404, a display device 1406, or a computer 1408" (*emphasis added*). Rather than disclosing a method of scanning an image of computer-readable

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code from an electronic display, this portion of Roustaei is directed at converting scanned data into a barcode and outputting the barcode to a display device. While Roustaei discloses scanning barcodes (*see, e.g.* Col. 5, lines 8-9), the Applicants find no mention of measuring light from an electronic display, much less determining whether the electronic display is an emissive display. Thus, this portion of Roustaei does not relate to determining if a display is emissive. Roustaei teaches away from the present invention because he appears to rely on ambient light to illuminate the images he scans (Col. 6, lines 24-27).

Anticipation of claim 10 requires that Roustaei disclose each element of claim 10. *W.L. Gore & Assocs. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983)(*citing Soundscriber Corp. v. United States* 369 F.2d 954, 960(Ct. Cl.), *adopted*, 149 USPQ 640 (Ct. Cl. 1966)). Roustaei does not disclose all steps recited in claim 10. Therefore, the Applicants believe claim 10 and all claims that depend from claim 10 are allowable.

Claim 15 recites a computer-readable medium having computer-executable instructions for scanning a computer-readable code from an electronic display with an imaging camera. Roustaei does not disclose a computer-readable medium having these computer-executable instructions, and therefore does not anticipate claim 15.

Claim 16 recites a method of scanning a barcode from an electronic display with an imaging scanner comprising measuring a refresh period of the electronic display and setting an exposure time of the imaging scanner according to the measured refresh period. The Examiner states that Roustaei discloses a system that includes means of measuring a read/refresh period (# frames per seconds) of the electronic display, with reference to Col 13, lines 4+. The Applicants respectfully traverse.

Roustaei discloses parameters of a SONY ILX505™ CCD array (*see* Col. 12, lines 65-67). The read rate that the Examiner refers to relates to the CCD array, not to a refresh period of an electronic display. As taught by the Applicants on page 13, lines 5-7 (paragraph [0057]), the sampling rate of the imaging camera can interfere with the refresh rate of the display screen to cause severe brightness variations in the barcode image. Roustaei does not disclose either measuring a refresh period of an electronic display nor setting an exposure time of an imaging scanner according to the measured refresh period.

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Therefore, Roustaei does not anticipate claim 16, and the Applicants believe claim 16 and all claims that depend from claim 16 are allowable, and that claim 22 is allowable for at least similar reasons.

Claim 17, which depends from claim 16, further recites that the exposure time is at least twice the refresh period of the electronic display. The Examiner states that Roustaei teaches a system wherein the exposure time is at least twice the readout/refresh period of the electronic display, citing Col. 17, lines 12+. This portion of Roustaei appears to relate to specifics of a CMOS detector 206, particularly maximum and minimum exposure times, and not to setting an exposure at least twice the refresh period of an electronic display. The Applicants teach in paragraph [0058] that capturing 2 or more refresh cycles in each imaging cycle helps avoid the severe brightness variations discussed in paragraph [0057]. Therefore, the Applicants believe claim 17 is further allowable, and that claims 18 and 19 are further allowable for similar reasons.

Claim 20, which depends from claim 16, further recites capturing an image from the electronic display with the imaging scanner, evaluating the image for an exposure level, and adjusting an exposure parameter of the imaging scanner according to the exposure level. The Examiner states that Roustaei discloses a system and method of these recited steps. The Examiner states that an image is evaluated for an exposure level (meaning determining the black level of the captured image or if additional illumination is needed so as to supply extra illumination), citing Col. 2, lines 48+. Roustaei states in Col. 2, lines 51-55 that "[a]n illumination detector comprising a photodiode or phototransistor may be included [in addition to the image detector] for sending the reflected light from the target to establish exposure time to be used during image acquisition, and to determine if supplemental light is needed." The steps recited in claim 20 are not disclosed. Therefore, the Applicants believe claim 20 is further allowable.

Arguments in Support of Claims 1-5, 8, and 28-33

The Applicants sincerely thank the Examiner for his comments on page 4 of the Office action regarding his interpretation of the claim language. Claim 1 has been amended to positively recite that the illumination lamp is disposed within the shroud to

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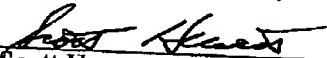
illuminate the computer-readable code at an angle chosen in a manner to avoid specular reflection of light from the illumination lamp off the surface to the imaging camera. Claims 3, 5, and 8 have been amended in a similar fashion. The Applicants believe these amendments directly address the Examiner's concerns, specifically, to positively claim that the chosen angle is regarded as the means of avoiding specular reflection, and believe claims 1, 3, 5, and 8, and all claims that depend from claims 1, 3, 5, and 8 are in condition for allowance.

Conclusion

In view of the foregoing, the Applicants believe all claims pending in this Application are in condition for allowance, and that the Applicants are entitled to the claims in accordance with the Title 35 of the United States Code and Art. 1, § 8, cl. 8 of the Constitution of the United States. The Applicants respectfully request reconsideration of all pending claims, the withdrawal of all rejections, and the issuance of a formal Notice of Allowance at an early date.

If the Examiner believes this amendment does not put all pending claims in condition for allowance, the undersigned invites the Examiner to telephone the undersigned at (707) 591-0789.

Respectfully submitted,


Scott Hewett
Reg. No. 41, 836

Scott Hewett
Patent Attorney
400 West Third Street, No. 223
Santa Rosa, CA 95401
Tel: (707) 591-0789
Fax: (707) 591-0392